

IN THE CLAIMS

Please amend claims 1, 3, 5, 6, 8 and 9 as follows (a marked-up copy of the claims is attached at the end of this Reply):

546 B' 1. (Amended - Clean Copy) A stereo camera comprising:

a pair of photographing optical systems that produces a corresponding pair of photographing areas, said pair of photographing optical systems being located in a common plane to enable a common photographing coverage between each of the pair of photographing areas;

a1 an object distance measuring device that measures a distance to an object;

a convergence angle adjustment mechanism that varies an angle of convergence, defined by optical axes of said pair of photographing optical systems, to adjust an amount of the common photographic coverage of said pair of photographing optical systems; and

a controller that controls said convergence angle adjustment mechanism in accordance with object distance data corresponding to the measured distance to the object.

3. (Amended - Clean Copy) The stereo camera according to claim 2, wherein said drive mechanism comprises:

a2 a pair of rotary plates having respective center axes of rotation in parallel with each other, said pair of rotary plates supporting said pair of photographing optical systems and having inter-meshing sector gears;

a² a sector worm wheel provided on one of said rotary plates; and

a worm which is in mesh with said sector worm wheel, said worm being secured to a drive shaft of a motor.

a³ 5. (Amended - Clean Copy) The stereo camera according to claim 1, wherein said convergence angle adjustment mechanism comprises a drive mechanism that moves at least a part of each of said pair of photographing optical systems in a direction of a base length of said pair of photographing optical systems.

6. (Amended - Clean Copy) The stereo camera according to claim 1, wherein each of said pair of photographing optical systems comprises an image pickup device that performs a passive measurement of an object distance, such that a measurement point of said image pickup device is located on a closest side of a field angle of the corresponding photographing optical system, with respect to a median line of the field angle.

a⁴ 8. (Amended - Clean Copy) A stereo camera comprising:
at least a pair of photographing optical systems arranged in a common plane; and
a convergence angle controller that varies an angle of convergence defined by optical axes of said pair of photographing optical systems based on at least a measured object distance.

9. Amended - Clean Copy) A stereo camera comprising:

a4
a pair of photographing optical systems that produce a corresponding pair of photographing areas, said pair of photographing optical systems being located in a common plane to produce a common photographing coverage between each of the pair of photographing areas;

an object distance measuring device that measures a distance to an object;

a photographic coverage adjustment device that adjusts an amount of the common photographic coverage of said pair of photographing optical systems; and

a controller that controls said photographic coverage adjustment device in accordance with object distance data corresponding to the measured distance to the object.

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Please enter the following claims for the Examiner's consideration:

--- 10. (New) The stereo camera according to claim 1, wherein said object distance measuring device comprises an image sensor that performs an active distance measurement.

11. (New) The stereo camera according to claim 1, wherein the distance measured by said object distance measuring device comprises a distance from a point on the common plane, located between said pair of photographing optical systems, to the object.

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12. (New) The stereo camera according to claim 11, wherein the point on the common plane is centered between said pair of photographing optical systems.

13. (New) The stereo camera according to claim 1, further comprising a pair of passive distance measuring devices, distinct from the object distance measuring device.

14. (New) The stereo camera according to claim 13, wherein the pair of photographing optical systems perform a focusing function based on data obtained from the pair of passive distance devices.---